

Notice of Allowability

Application No.

09/743,107

Examiner

Chih-Min Kam

Applicant(s)

HANSON ET AL.

Art Unit

1656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/5/07.
2. ☒ The allowed claim(s) is/are 54,55,66,68-71,73,75,76,81-97,100-103,105,106 and 110.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 10/5/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Status of the Claims

1. Claims 54, 55, 66, 68-71, 73, 75-76, 81-97, 100-103, 105, 106 and 110 are pending.

Applicants' amendment filed January 5, 2007 is acknowledged, and applicants' response has been fully considered. Claim 110 has been amended, and claims 61, 63 and 64 have been cancelled. Therefore, claims 54, 55, 66, 68-71, 73, 75-76, 81-97, 100-103, 105, 106 and 110 are examined.

Withdrawn-Claim Rejections - 35 USC § 112

2. The previous rejection of claims 61, 63, 64 and 110, under 35 U.S.C.112, first paragraph, written description, is withdrawn in view of applicants' cancellation of the claim, applicants' amendment to the claim, and applicants' response at pages 7-8 in the amendment filed January 5, 2007.
3. The previous rejection of claim 64 under 35 U.S.C.112, second paragraph, is withdrawn in view of applicants' cancellation of the claim, and applicants' response at page 9 in the amendment filed January 5, 2007.

Examiner's Amendment

An **Examiner's Amendment** to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Deborah H. Yelling on March 27, 2007.

Examiner's Amendment to the Specification:

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Please add the following paragraph at page 1 after the title:

The present application is a 371 of PCT/SE99/01230, filed July 6, 1999, which claims the benefits of foreign priority of Sweden 9802441-7, filed July 6, 1998; Sweden 9802562-0, filed July 17, 1998; and Sweden 9804614-7, filed December 29, 1998.

Examiner's Amendment to the Claims:

Claims 54, 66 and 100 have been amended as follows:

54. (Currently amended) A purified peptide comprising ²⁰Cys-Phe-X₁-X₂-X₃-X₄-X₅-X₆-X₇-Lys-Val-Arg³¹ (SEQ ID NO: 99) wherein X₁ is Gln, or Ala; X₂ is Trp or Leu; X₃ is Gln, Lys, Orn, Ala, or Nle; X₄ is Arg, Lys, Ala; X₅ is Asn, Orn, Ala, or Nle; X₆ is Met or Leu; and X₇ is Arg or Lys, and wherein the peptide is SEQ ID NO:2-5, 8, 31-37, 47, 49, 51, 63, 65, 67, 70, 72-74, 80-83, 87-96 or ~~87-97~~.

66. (Currently amended) A purified peptide comprising ²⁰Cys-Phe-X₁-X₂-X₃-X₄-X₅-X₆-X₇-Lys-Val-Arg³¹ (SEQ ID NO: 99) wherein X₁ is Gln, or Ala; X₂ is Trp or Leu; X₃ is Gln, Lys, Orn, Ala, or Nle; X₄ is Arg, Lys, Ala; X₅ is Asn, Orn, Ala, or Nle; X₆ is Met or Leu; and X₇ is Arg or Lys, wherein the peptide is SEQ ID NO:2-5, 8, 31-37, 47, 49, 51, 63, 65, 67, 70, 72-74, 80-83, 87-88 or ~~87-89~~, and wherein the cysteine is replaced by an acetamidomethyl-cysteine.

100. (Currently amended) The purified peptide of claim 54, wherein the peptide is SEQ ID NO:2-5 ~~2-4~~ or 5.

The following is an Examiner's Statement of Reasons for Allowance: The following references appear to be the closest art to the claimed invention. Yamamoto *et al.* (U.S. Patent 5,565,425) teach a peptide having the amino acid sequence of A-Cys-Phe-Gln-Trp-Gln-Arg-Asn-met-Arg-Lys-Val-Arg-Gly-Pro-Pro-Val-Ser-Cys-B, where A- is a free amino group, an acetyl group or a dipeptide and -B is a pentapeptide having the amino acid sequence Val-Arg-Arg-Ala-phe; and Bellamy et al. (Biochimica et Biophysica Acta 1121, 130-136 (1992) teach lactoferricin

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H (residues 1-47) and lactoferricin B (residues 17-41). However, the references do not teach or suggest the peptide consisting of the amino acid sequence of SEQ ID NO:2-5, 8, 31-37, 47, 49, 51, 63, 65, 67, 70, 72-74, 80-83, 87-96 or 97. Therefore, the claims are allowable over the art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Min Kam whose telephone number is (571) 272-0948. The examiner can normally be reached on 8.00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathleen Bragdon can be reached at 571-272-0931. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chih-Min Kam, Ph. D.
Primary Patent Examiner



CHIH-MIN KAM
PRIMARY EXAMINER

CMK

March 27, 2007